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* * * * * Welcome to STN International * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	JAN 27	Source of Registration (SR) information in REGISTRY updated and searchable
NEWS	4	JAN 27	A new search aid, the Company Name Thesaurus, available in CA/Caplus
NEWS	5	FEB 05	German (DE) application and patent publication number format changes
NEWS	6	MAR 03	MEDLINE and LMEDLINE reloaded
NEWS	7	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS	8	MAR 03	FRANCEPAT now available on STN
NEWS	9	MAR 29	Pharmaceutical Substances (PS) now available on STN
NEWS	10	MAR 29	WPIFV now available on STN
NEWS	11	MAR 29	New monthly current-awareness alert (SDI) frequency in RAPRA
NEWS	12	APR 26	PROMT: New display field available
NEWS	13	APR 26	IFIPAT/IFIUDB/IFICDB: New super search and display field available
NEWS	14	APR 26	LITALERT now available on STN
NEWS	15	APR 27	NLDB: New search and display fields available
NEWS	16	May 10	PROUSDDR now available on STN
NEWS	17	May 19	PROUSDDR: One FREE connect hour, per account, in both May and June 2004
NEWS	18	May 12	EXTEND option available in structure searching
NEWS	19	May 12	Polymer links for the POLYLINK command completed in REGISTRY
NEWS	20	May 17	FRFULL now available on STN
NEWS EXPRESS			MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS INTER			General Internet Information
NEWS LOGIN			Welcome Banner and News Items
NEWS PHONE			Direct Dial and Telecommunication Network Access to STN
NEWS WWW			CAS World Wide Web Site (general information)

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 17:55:34 ON 25 MAY 2004

=> file medline, uspatful, dgene, embase, biosis, wpids, fsta, japio, scisearch,
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
1.26	1.26

FULL ESTIMATED COST

FILE 'MEDLINE' ENTERED AT 17:58:56 ON 25 MAY 2004

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FILE 'WPIDS' ENTERED AT 17:58:56 ON 25 MAY 2004
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FILE 'FSTA' ENTERED AT 17:58:56 ON 25 MAY 2004
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FILE 'JAPIO' ENTERED AT 17:58:56 ON 25 MAY 2004
COPYRIGHT (C) 2004 Japanese Patent Office (JPO)- JAPIO

FILE 'SCISEARCH' ENTERED AT 17:58:56 ON 25 MAY 2004
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=> s fluorescen? (5a) protein?
3 FILES SEARCHED...

L1 93235 FLUORESCEN? (5A) PROTEIN?

=> s l1 and linker

L2 6441 L1 AND LINKER

=> s l1 and linker#

L3 7258 L1 AND LINKER#

=> s (resonan?) (10A) (energy?)

L4 41802 (RESONAN?) (10A) (ENERGY?)

=> s FRET

L5 11032 FRET

=> s l4 and l3

L6 1100 L4 AND L3

=> s l1 and l5

L7 3334 L1 AND L5

=> s l7 and l6

L8 794 L7 AND L6

=> e Tsien, R/au

E1	2	TSIEN WEN HUI/AU
E2	3	TSIEN Y L/AU
E3	0 -->	TSIEN, R/AU
E4	1	TSIENI R W/AU
E5	1	TSIER A D/AU
E6	2	TSIER G I/AU
E7	1	TSIER J M/AU

```

E8          2      TSIER M S/AU
E9          1      TSIER Y/AU
E10         1      TSIER Y M/AU
E11         2      TSIER Y U M/AU
E12         1      TSIER YURI/AU

```

=> e Tsien, R/in

```

'IN' IS NOT A VALID EXPAND FIELD CODE FOR FILE 'MEDLINE'
'IN' IS NOT A VALID EXPAND FIELD CODE FOR FILE 'EMBASE'
'IN' IS NOT A VALID EXPAND FIELD CODE FOR FILE 'SCISEARCH'

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E1          1      TSIENT WEI H/IN
E2          1      TSIENT WEI HWA/IN
E3          0  --> TSIENT, R/IN
E4          1      TSIER A D/IN
E5          2      TSIER G I/IN
E6          1      TSIER J M/IN
E7          1      TSIER M S/IN
E8          1      TSIER Y/IN
E9          2      TSIER Y U M/IN
E10         1      TSIER YURI/IN
E11         1      TSIESALINE I Y A/IN
E12         1      TSIESALINI I Y A/IN

```

The indicated field code is not available for EXPAND in this file. To see a list of valid EXPAND field codes, enter HELP SFIELDS at an arrow prompt (=>).

=> s e4

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'IN' IS NOT A VALID FIELD CODE
'IN' IS NOT A VALID FIELD CODE
'IN' IS NOT A VALID FIELD CODE
L9          1 "TSIER A D"/IN

```

=> end

ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:n

=> s e4

```

'IN' IS NOT A VALID FIELD CODE
'IN' IS NOT A VALID FIELD CODE
'IN' IS NOT A VALID FIELD CODE
L10         1 "TSIER A D"/IN

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=> end

ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:n

=> d his

(FILE 'HOME' ENTERED AT 17:55:34 ON 25 MAY 2004)

FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, BIOSIS, WPIDS, FSTA, JAPIO, SCISEARCH' ENTERED AT 17:58:56 ON 25 MAY 2004

```

L1          93235 S FLUORESCEN? (5A) PROTEIN?
L2          6441 S L1 AND LINKER
L3          7258 S L1 AND LINKER#
L4          41802 S (RESONAN?) (10A) (ENERGY?)
L5          11032 S FRET
L6          1100 S L4 AND L3
L7          3334 S L1 AND L5
L8          794 S L7 AND L6
              E TSIENT, R/AU
              E TSIENT, R/IN
L9          1 S E4
L10         1 S E4

```

=> d 19 ti abs ibib tot

L9 ANSWER 1 OF 1 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
TI Pneumatic sprayer for liquids and solids - has channels for compressed air and material and electromagnetic control for valve to open nozzle letting material out.

AN 1989-205092 [28] WPIDS

AB SU 1450880 A UPAB: 19930923

Cylindrical body (1) has channels (2) supplying compressed air and (3) feeding-in sprayed material; coaxial in body is material nozzle (4) and valve made as spring-loaded rod (6) with pusher (7) having central channel open to nozzle, connected to compressed-air channel and space in body behind piston. There are electromagnetic valve and tongs-like bush made as hollow conical screw with longitudinal grooves. Central channel has central recess and thread on outer part.

The material to be sprayed travels along channel (3) with compressed air admitted via (2). As electric voltage is fed to electromagnetic coil (13) ferromagnetic core is drawn into coil and opens inlet to central channel (8) of rod (6). Air from (2) goes into (8) and space (9) behind piston. Piston (7) with rod (6) is moved and material nozzle (4) is opened. As air passes through bush (10), reduced pressure is created and material particles are entrained to form flare directed against surface of article.

USE/ADVANTAGE - As liquid spraying device, for pneumatic spraying of liquids, free-flowing solids and cleaning compns. on to surfaces of building articles. Range of control of feed of sprayed material and air is increased. Bul.2/15.1.89

1/1

ACCESSION NUMBER: 1989-205092 [28] WPIDS

DOC. NO. NON-CPI: N1989-156502

TITLE: Pneumatic sprayer for liquids and solids - has channels for compressed air and material and electromagnetic control for valve to open nozzle letting material out.

DERWENT CLASS: P42

INVENTOR(S): PILIPENKO, L G; TSIER, A D

PATENT ASSIGNEE(S): (BGOS-R) BELO GOSSTROI RES

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
SU 1450880	A	19890115	(198928)*		3

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
SU 1450880	A	SU 1987-4216545	19870324

PRIORITY APPLN. INFO: SU 1987-4216545 19870324

=> d his

(FILE 'HOME' ENTERED AT 17:55:34 ON 25 MAY 2004)

FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, BIOSIS, WPIDS, FSTA, JAPIO, SCISEARCH' ENTERED AT 17:58:56 ON 25 MAY 2004

L1 93235 S FLUORESCEN? (5A) PROTEIN?
L2 6441 S L1 AND LINKER
L3 7258 S L1 AND LINKER#
L4 41802 S (RESONAN?) (10A) (ENERGY?)

L5 11032 S FRET
 L6 1100 S L4 AND L3
 L7 3334 S L1 AND L5
 L8 794 S L7 AND L6
 E TSIEN, R/AU
 E TSIEN, R/IN
 L9 1 S E4
 L10 1 S E4

=> s l8 and GFP
 L11 552 L8 AND GFP

=> s l11 and protease
 L12 315 L11 AND PROTEASE

=> s l12 and S65T
 L13 55 L12 AND S65T

=> s l13 and F64L
 L14 36 L13 AND F64L

=> d l14 ti abs ibib tot

L14 ANSWER 1 OF 36 USPATFULL on STN
 TI Directed evolution methods for improving polypeptide folding and solubility and superfolder **fluorescent proteins** generated thereby
 AB The current invention provides methods of improving folding of polypeptides using a poorly folding domain as a component of a fusion protein comprising the poorly folding domain and a polypeptide of interest to be improved. The invention also provides novel green **fluorescent proteins** (GFPs) and red **fluorescent proteins** that have enhanced folding properties.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 ACCESSION NUMBER: 2004:102278 USPATFULL
 TITLE: Directed evolution methods for improving polypeptide folding and solubility and superfolder **fluorescent proteins** generated thereby
 INVENTOR(S): Waldo, Geoffrey S., Santa Fe, NM, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004078148	A1	20040422
APPLICATION INFO.:	US 2003-423688	A1	20030424 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2002-132067, filed on 24 Apr 2002, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	UNIVERSITY OF CALIFORNIA, LOS ALAMOS NATIONAL LABORATORY, P.O. BOX 1663, MS A187, LOS ALAMOS, NM, 87545		
NUMBER OF CLAIMS:	61		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	11 Drawing Page(s)		
LINE COUNT:	2833		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 2 OF 36 USPATFULL on STN
 TI Circularly permuted **fluorescent protein** indicators
 AB The present invention provides polypeptide and polynucleotides encoding fluorescent indicators having inserted within a fluorescent moiety a

sensor polypeptide. Also provided are methods of using the fluorescent indicator. Circularly permuted fluorescent polypeptides and polynucleotides are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2004:53306 USPATFULL
TITLE: Circularly permuted **fluorescent protein** indicators
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
Baird, Geoffrey, Solana Beach, CA, United States
PATENT ASSIGNEE(S): The Regents of the University of California, Oakland, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6699687	B1	20040302
APPLICATION INFO.:	US 1999-316920		19990521 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Kunz, Gary		
ASSISTANT EXAMINER:	Murphy, Joseph F.		
LEGAL REPRESENTATIVE:	Heller Ehrman White & McAuliffe LLP		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	9 Drawing Figure(s); 8 Drawing Page(s)		
LINE COUNT:	2630		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 3 OF 36 USPATFULL on STN
TI Long wavelength engineered **fluorescent proteins**
AB Engineered **fluorescent proteins**, nucleic acids
encoding them and methods of use.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2004:18826 USPATFULL
TITLE: Long wavelength engineered **fluorescent proteins**
INVENTOR(S): Wachter, Rebekka M., Creswell, OR, UNITED STATES
Remington, S. James, Eugene, OR, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004014128	A1	20040122
APPLICATION INFO.:	US 2003-620099	A1	20030714 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2000-575847, filed on 19 May 2000, GRANTED, Pat. No. US 6593135 Continuation-in-part of Ser. No. US 1997-974737, filed on 19 Nov 1997, GRANTED, Pat. No. US 6077707 Continuation of Ser. No. US 1997-911825, filed on 15 Aug 1997, GRANTED, Pat. No. US 6054321 Continuation-in-part of Ser. No. US 1996-706408, filed on 30 Aug 1996, GRANTED, Pat. No. US 6124128		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-24050P	19960816 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Lisa A. Haile, J.D., Ph.D., GRAY CARY WARE & FREIDENRICH LLP, Suite 1100, 4365 Executive Drive, San Diego, CA, 92121-2133	
NUMBER OF CLAIMS:	187	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	62 Drawing Page(s)	

LINE COUNT: 3919
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 4 OF 36 USPATFULL on STN

TI **Fluorescent protein** sensors for measuring the pH of
a biological sample

AB Disclosed are **fluorescent protein** sensors for
measuring the pH of a sample, nucleic acids encoding them, and methods
of use. The preferred **fluorescent protein** sensors
are variants of the green **fluorescent protein** (**GFP**) from *Aequora victoria*. Also disclosed are compositions and
methods for measuring the pH of a specific region of a cell, such as the
mitochondrial matrix or the Golgi lumen.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:301039 USPATFULL

TITLE: **Fluorescent protein** sensors for
measuring the pH of a biological sample

INVENTOR(S): Tsien, Roger Y., La Jolla, CA, UNITED STATES
Llopis, Juan, San Diego, CA, UNITED STATES
Wachter, Rebekka M., Creswell, OR, UNITED STATES
Remington, S. James, Eugene, OR, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003212265	A1	20031113
APPLICATION INFO.:	US 2003-457982	A1	20030609 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-602641, filed on 22 Jun 2000, GRANTED, Pat. No. US 6608189 Continuation-in-part of Ser. No. US 1998-94359, filed on 9 Jun 1998, GRANTED, Pat. No. US 6140132		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	HELLER EHRMAN WHITE & MCAULIFFE LLP, 275 MIDDLEFIELD ROAD, MENLO PARK, CA, 94025-3506		
NUMBER OF CLAIMS:	25		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	5 Drawing Page(s)		
LINE COUNT:	3086		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 5 OF 36 USPATFULL on STN

TI Bioluminescence **resonance energy** transfer(**bret**)
system with broad spectral resolution between donor and acceptor
emission wavelengths and its use

AB The present invention provides a bioluminescence **resonance**
energy transfer (BRET) detection system characterised by a broad
spectral resolution between donor and acceptor emission wavelengths. The
broad spectral resolution between the emission wavelength of the
bioluminescent donor **protein** and the **fluorescent**
acceptor molecule results in an increased signal-to-base ratio and
dynamic range in comparison with a basic BRET system.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:288646 USPATFULL

TITLE: Bioluminescence **resonance energy**
transfer(**bret**) system with broad spectral resolution
between donor and acceptor emission wavelengths and its
use

INVENTOR(S): Joly, Erik, Blainville, CANADA

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003203404	A1	20031030

APPLICATION INFO.: US 2002-168447 A1 20021218 (10)
WO 2000-CA1516 20001222

	NUMBER	DATE
PRIORITY INFORMATION:	CA 1999-2291968	19991222
	CA 2000-2314861	20000802
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Hollie L Baker, Hale and Dorr, 60 State Street, Boston, MA, 02109	
NUMBER OF CLAIMS:	34	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	34 Drawing Page(s)	
LINE COUNT:	3234	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 6 OF 36 USPATFULL on STN

TI Emission ratiometric indicators of phosphorylation
AB A chimeric phosphorylation indicator is provided. A chimeric phosphorylation indicator can contain a donor molecule, a phosphorylatable domain, a phosphoaminoacid binding domain (PAABD), and an acceptor molecule. A chimeric phosphorylation indicator also can contain a phosphorylatable polypeptide and a **fluorescent protein**, wherein the phosphorylatable polypeptide is contained within the sequence of the **fluorescent protein**, or wherein the **fluorescent protein** is contained within the sequence of the phosphorylatable polypeptide. Also provided are polynucleotides encoding such chimeric phosphorylation indicators, as well as kits containing the indicators or the polynucleotides. In addition, a method of using the chimeric phosphorylation indicators to detect a kinase or phosphatase in a sample is provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:265214 USPATFULL
TITLE: Emission ratiometric indicators of phosphorylation
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, UNITED STATES
Ting, Alice Y., La Jolla, CA, UNITED STATES
Zhang, Jin, San Diego, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003186229	A1	20031002
APPLICATION INFO.:	US 2001-865291	A1	20010524 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1999-396003, filed on 13 Sep 1999, ABANDONED Continuation of Ser. No. US 1997-792553, filed on 31 Jan 1997, GRANTED, Pat. No. US 5981200 Continuation-in-part of Ser. No. US 1996-594575, filed on 31 Jan 1996, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	HELLER EHRMAN WHITE & MCAULIFFE LLP, 275 MIDDLEFIELD ROAD, MENLO PARK, CA, 94025-3506		
NUMBER OF CLAIMS:	94		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	7 Drawing Page(s)		
LINE COUNT:	3148		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 7 OF 36 USPATFULL on STN

TI Chimeric **GFP**-aequorin as bioluminescent Ca⁺at the single cell level
AB A modified bioluminescent system comprising a fluorescent molecule covalently linked with a photoprotein, wherein said link between the two

proteins has the function to stabilize the modified bioluminescent system and allowing the transfer of the **energy** by Chemiluminescence **Resonance Energy** Transfer (CRET).

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:251021 USPATFULL
TITLE: Chimeric **GFP**-aequorin as bioluminescent Ca²⁺ at the single cell level
INVENTOR(S): Baubet, Valerie, Kansas City, MO, UNITED STATES
Le Mouellic, Herve, Paris, FRANCE
Brulet, Philippe, Paris, FRANCE

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003175807	A1	20030918
APPLICATION INFO.:	US 2002-307389	A1	20021202 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. WO 2001-EP7057, filed on 1 Jun 2001, UNKNOWN		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-208314P	20000601 (60)
	US 2000-210526P	20000609 (60)
	US 2000-255111P	20001214 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Finnegan, Henderson, Farabow,, Garrett & Dunner, L.L.P., 1300 I Street, N.W., Washington, DC, 20005-3315	
NUMBER OF CLAIMS:	52	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	14 Drawing Page(s)	
LINE COUNT:	2656	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 8 OF 36 USPATFULL on STN

TI Non-oligomerizing **fluorescent proteins**
AB A non-oligomerizing **fluorescent protein**, which is derived from a **fluorescent protein** having at least one mutation that reduces or eliminates the ability of the **fluorescent protein** to oligomerize, is provided. The non-oligomerizing **fluorescent protein** can be derived from a naturally occurring green **fluorescent protein**, a red **fluorescent protein**, or other **fluorescent protein**, or a **fluorescent protein** related thereto. Also provided is a fusion **protein**, which includes a non-oligomerizing **fluorescent protein** linked to at least one polypeptide of interest. In addition, a polynucleotide encoding a non-oligomerizing **fluorescent protein** is provided, as is a recombinant nucleic acid molecule, which includes polynucleotide encoding a non-oligomerizing **fluorescent protein** operatively linked to at least a second polynucleotide. Vectors and host cells containing such polynucleotides also are provided, as are kits containing one or more non-oligomerizing **fluorescent proteins** or encoding polynucleotides or constructs derived therefrom. Further provided are methods of making and using the proteins and polynucleotides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:244502 USPATFULL
TITLE: Non-oligomerizing **fluorescent proteins**
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, UNITED STATES
Zacharias, David A., San Diego, CA, UNITED STATES

Baird, Geoffrey S., Solana Beach, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003170911	A1	20030911
APPLICATION INFO.:	US 2001-794308	A1	20010226 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	KNOBBE MARTENS OLSON & BEAR LLP, 2040 MAIN STREET, FOURTEENTH FLOOR, IRVINE, CA, 92614		
NUMBER OF CLAIMS:	72		
EXEMPLARY CLAIM:	1		
LINE COUNT:	3003		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 9 OF 36 USPATFULL on STN

TI **Fluorescent protein** sensors for measuring the pH of
a biological sample

AB Disclosed are **fluorescent protein** sensors for
measuring the pH of a sample, nucleic acids encoding them, and methods
of use. The preferred **fluorescent protein** sensors
are variants of the green **fluorescent protein** (**GFP**) from *Aequorea victoria*. Also disclosed are compositions and
methods for measuring the pH of a specific region of a cell, such as the
mitochondrial matrix or the Golgi lumen.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:222175 USPATFULL
TITLE: **Fluorescent protein** sensors for
measuring the pH of a biological sample
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
Llopis, Juan, La Jolla, CA, United States
Wachter, Rebekka M., Creswell, OR, United States
Remington, S. James, Eugene, OR, United States
PATENT ASSIGNEE(S): University of California, Oakland, CA, United States
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6608189	B1	20030819
APPLICATION INFO.:	US 2000-602641		20000622 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1998-172063, filed on 13 Oct 1998, now patented, Pat. No. US 6150176 Continuation-in-part of Ser. No. US 1998-94359, filed on 9 Jun 1998, now patented, Pat. No. US 6140132		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Slobodyansky, Elizabeth		
LEGAL REPRESENTATIVE:	Dreger, Ginger R., Heller Ehrman White & McAuliffe LLP		
NUMBER OF CLAIMS:	8		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	11 Drawing Figure(s); 5 Drawing Page(s)		
LINE COUNT:	3007		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 10 OF 36 USPATFULL on STN

TI Dimeric fluorescent polypeptides

AB The invention relates to proteins or polypeptides that comprise
intramolecular dimers of **fluorescent protein**
monomers. More specifically, the invention relates to recombinant
polypeptides comprising a monomer of a fluorescent polypeptide, a
linker peptide, and a second monomer of that fluorescent
polypeptide, where the monomers form an intramolecular dimer. The
invention also relates to nucleic acids encoding Intramolecular Dimer

Fluorescent Proteins (IDFPs) and vectors comprising such nucleic acids. The invention further relates to methods of making IDFPs and methods of using them. IDFPs are, useful in any application suited for **fluorescent proteins** and are particularly useful in applications in which more than one **fluorescent protein** sharing complementary dimerization interfaces is present in the same mixture or is expressed in the same cell, because IDFPs do not form heterodimers.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:158953 USPATFULL
 TITLE: Dimeric fluorescent polypeptides
 INVENTOR(S): Davis, Ronald W., Palo Alto, CA, UNITED STATES
 Vaillancourt, Peter, Del Mar, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003108566	A1	20030612
APPLICATION INFO.:	US 2001-21818	A1	20011213 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-256121P	20001215 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	PALMER & DODGE, LLP, KATHLEEN M. WILLIAMS / STR, 111 HUNTINGTON AVENUE, BOSTON, MA, 02199	
NUMBER OF CLAIMS:	36	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Page(s)	
LINE COUNT:	1735	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 11 OF 36 USPATFULL on STN

TI mcFP encoding nucleic acids, polypeptides, antibodies and methods of use thereof
 AB mcFP encoding nucleic acids, polypeptides and antibodies immunologically specific therefore are disclosed. Methods of use thereof are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:154410 USPATFULL
 TITLE: mcFP encoding nucleic acids, polypeptides, antibodies and methods of use thereof
 INVENTOR(S): Falkowski, Paul, Princeton, NJ, UNITED STATES
 Sun, Yi, New Brunswick, NJ, UNITED STATES
 Gorbunov, Maxim, Somerset, NJ, UNITED STATES
 Wyman, Kevin, East Brunswick, NJ, UNITED STATES
 Chen, Yi-Bu, Highland Park, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003106078	A1	20030605
APPLICATION INFO.:	US 2002-244779	A1	20020916 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-322189P	20010914 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	DANN DORFMAN HERRELL & SKILLMAN, SUITE 720, 1601 MARKET STREET, PHILADELPHIA, PA, 19103-2307	
NUMBER OF CLAIMS:	23	
EXEMPLARY CLAIM:	1	

NUMBER OF DRAWINGS: 7 Drawing Page(s)
LINE COUNT: 1622
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 12 OF 36 USPATFULL on STN

TI Compositions and mehtods for determining interactions of mitochondrial components, and for identifying agents that alter such interactions
AB Compositions and methods are provided for identifying agents that alter mitochondrial membrane permeability transition. The screening methods generally detect agents that alter the interaction between the mitochondrial adenine nucleotide translocator and cyclophilin D. Such agents may be used, for example, in the treatment of a variety of conditions associated with altered mitochondrial function.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:129789 USPATFULL
TITLE: Compositions and mehtods for determining interactions of mitochondrial components, and for identifying agents that alter such interactions
INVENTOR(S): Murphy, Anne N., Encinitas, CA, United States
Clevenger, William, Oceanside, CA, United States
Wiley, Sandra Eileen, San Diego, CA, United States
Andreyev, Alexander Y., San Diego, CA, United States
Frigeri, Luciano G., San Diego, CA, United States
Velecelebi, Gonul, San Diego, CA, United States
Davis, Robert E., San Diego, CA, United States
PATENT ASSIGNEE(S): Mitokor, San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6562563	B1	20030513
APPLICATION INFO.:	US 1999-434354		19991103 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Jones, W. Gary		
ASSISTANT EXAMINER:	Chakrabarti, Arun Kr.		
LEGAL REPRESENTATIVE:	Seed Intellectual Property Law Group, PLLC		
NUMBER OF CLAIMS:	28		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	11 Drawing Figure(s); 10 Drawing Page(s)		
LINE COUNT:	5540		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 13 OF 36 USPATFULL on STN

TI Optical probes and assays
AB This invention provides an optical probe useful as an optical probe or sensor of post translational type modifications, such as phosphorylation. The invention comprises a polypeptide moiety, which contains a recognition motif for a post translational type activity and a **protease** site, which is coupled to a probe moiety. Modification of the polypeptide, by the post translational type activity, results in a modulation of the rate at which a **protease** cleaves the polypeptide which is sensed by a measurable change in at least one optical property of the optical probe upon cleavage. The present invention also includes a recombinant nucleic acid molecule that encodes an optical probe and a vector and host cell or library of cells that include the recombinant nucleic acid molecule. The optical probe can be used in methods to determine whether a sample, including a cell or a sample from an organism, contains a post-translational type modification activity. Such methods can also be used to determine whether a test chemical modulates the activity of a modifying activity, and thus can be used to identify therapeutic compositions. The identification of such therapeutic compositions can be

automated using a system that includes an optical probe.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:127115 USPATFULL
TITLE: Optical probes and assays
INVENTOR(S): Pollok, Brian A., San Diego, CA, UNITED STATES
Hamman, Brian D., Poway, CA, UNITED STATES
Rodems, Steven M., Poway, CA, UNITED STATES
Makings, Lewis R., Encinitas, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003087328	A1	20030508
APPLICATION INFO.:	US 2002-105735	A1	20020322 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-306542, filed on 5 May 1999, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	GARY CARY WARE & FRIENDENRICH LLP, 4365 EXECUTIVE DRIVE, SUITE 1600, SAN DIEGO, CA, 92121-2189		
NUMBER OF CLAIMS:	57		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	8 Drawing Page(s)		
LINE COUNT:	3346		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 14 OF 36 USPATFULL on STN

TI Chimeric **GFP**-aequorin as bioluminescent Ca++ reporters at the single cell level
AB A modified bioluminescent system comprising a fluorescent molecule covalently linked with a photoprotein, wherein said link between the two proteins has the function to stabilize the modified bioluminescent system and allowing the transfer of the **energy** by Chemiluminescence **Resonance Energy** Transfer (CRET).

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:94731 USPATFULL
TITLE: Chimeric **GFP**-aequorin as bioluminescent Ca++ reporters at the single cell level
INVENTOR(S): Baubet, Valerie, Paris, FRANCE
LeMouellic, Herve, Paris, FRANCE
Brulet, Philippe, Paris, FRANCE

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003066095	A1	20030403
APPLICATION INFO.:	US 2001-863901	A1	20010524 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-208314P	20000601 (60)
	US 2000-210526P	20000609 (60)
	US 2000-255111P	20001214 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	FINNEGAN, HENDERSON, FARABOW,, GARRETT & DUNNER, L.L.P., 1300 I STREET, N.W., WASHINGTON, DC, 20005	
NUMBER OF CLAIMS:	53	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	11 Drawing Page(s)	
LINE COUNT:	1808	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 15 OF 36 USPATFULL on STN

TI Monomeric and dimeric **fluorescent protein** variants and methods for making same

AB The present invention relates generally to variant **fluorescent proteins**, and more specifically to monomeric and dimeric forms of Anthozoan **fluorescent proteins**. In one aspect, the present invention provides variants of **fluorescent proteins**, where the variants have a reduced propensity to tetramerize, and form dimeric or monomeric structures. The invention also relates to methods of making and using such **fluorescent protein** monomers and dimers.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:86230 USPATFULL

TITLE: Monomeric and dimeric **fluorescent protein** variants and methods for making same

INVENTOR(S): Tsien, Roger Y., LaJolla, CA, UNITED STATES
Campbell, Robert E., San Diego, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003059835	A1	20030327
APPLICATION INFO.:	US 2002-121258	A1	20020410 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-866538, filed on 24 May 2001, PENDING Continuation-in-part of Ser. No. US 2001-794308, filed on 26 Feb 2001, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	KNOBBE MARTENS OLSON & BEAR LLP, 2040 MAIN STREET, FOURTEENTH FLOOR, IRVINE, CA, 91614		
NUMBER OF CLAIMS:	69		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	34 Drawing Page(s)		
LINE COUNT:	3394		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 16 OF 36 USPATFULL on STN

TI Methods for analyzing interactions between proteins in live and intact cells

AB The present invention describes a method for detecting the interaction of at least one intracellular **protein** and an extracellular **protein** using **fluorescent** markers and an **FRET** system. The method can be used to elucidate biological pathways and to evaluate potential drug candidates of therapeutic interest.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:64726 USPATFULL

TITLE: Methods for analyzing interactions between proteins in live and intact cells

INVENTOR(S): Pestka, Sidney, North Caldwell, NJ, UNITED STATES
Krause, Christopher D., Brick, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003044847	A1	20030306
APPLICATION INFO.:	US 2002-147335	A1	20020515 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-291119P	20010515 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	ROPES & GRAY, ONE INTERNATIONAL PLACE, BOSTON, MA, 02110-2624	
NUMBER OF CLAIMS:	49	

EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 13 Drawing Page(s)
LINE COUNT: 3246
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 17 OF 36 USPATFULL on STN
TI Long wavelength engineered **fluorescent proteins**
AB Engineered **fluorescent proteins**, nucleic acids
encoding them and methods of use are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:51221 USPATFULL
TITLE: Long wavelength engineered **fluorescent proteins**
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, UNITED STATES
Remington, James S., Eugene, OR, UNITED STATES
Cubitt, Andrew B., San Diego, CA, UNITED STATES
Heim, Roger, Del Mar, CA, UNITED STATES
Ormo, Mats F., Huddinge, SWEDEN
PATENT ASSIGNEE(S): The Regents of the University of California (U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003036178	A1	20030220
APPLICATION INFO.:	US 2002-71976	A1	20020205 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-465142, filed on 16 Dec 1999, GRANTED, Pat. No. US 6403374 Continuation of Ser. No. US 1997-974737, filed on 19 Nov 1997, GRANTED, Pat. No. US 6077707 Continuation of Ser. No. US 1997-911825, filed on 15 Aug 1997, GRANTED, Pat. No. US 6054321 Continuation-in-part of Ser. No. US 1996-706408, filed on 30 Aug 1996, GRANTED, Pat. No. US 6124128		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-24050P	19960816 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	GARY CARY WARE & FRIENDENRICH LLP, 4365 EXECUTIVE DRIVE, SUITE 1600, SAN DIEGO, CA, 92121-2189	
NUMBER OF CLAIMS:	1	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	53 Drawing Page(s)	
LINE COUNT:	2098	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 18 OF 36 USPATFULL on STN
TI Non-oligomerizing tandem **fluorescent proteins**
AB Non-oligomerizing **fluorescent proteins**, which are
formed by operatively linking two or more monomers of a
fluorescent protein, or which are derived from a
fluorescent protein having at least one mutation that
reduces or eliminates the ability of the **fluorescent**
protein to oligomerize, are provided. The non-oligomerizing
fluorescent proteins can be derived from a naturally
occurring green **fluorescent protein**, a red
fluorescent protein, or other **fluorescent**
protein, or a **fluorescent protein** related
thereto. Also provided is a fusion **protein**, which includes a
non-oligomerizing **fluorescent protein** linked to at
least one polypeptide of interest. In addition, a polynucleotide
encoding a non-oligomerizing **fluorescent protein** is

provided, as is a recombinant nucleic acid molecule, which includes polynucleotide encoding a non-oligomerizing **fluorescent protein** operatively linked to at least a second polynucleotide. Vectors and host cells containing such polynucleotides also are provided, as are kits containing one or more non-oligomerizing **fluorescent proteins** or encoding polynucleotides or constructs derived therefrom. Further provided are methods of making and using the proteins and polynucleotides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:44778 USPATFULL

TITLE: Non-oligomerizing tandem **fluorescent proteins**

INVENTOR(S): Tsien, Roger Y., La Jolla, CA, UNITED STATES
Campbell, Robert E., San Diego, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003032088	A1	20030213
APPLICATION INFO.:	US 2001-866538	A1	20010524 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-794308, filed on 26 Feb 2001, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	KNOBBE MARTENS OLSON & BEAR LLP, 620 NEWPORT CENTER DRIVE, SIXTEENTH FLOOR, NEWPORT BEACH, CA, 92660		
NUMBER OF CLAIMS:	87		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	3627		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 19 OF 36 USPATFULL on STN

TI **Fluorescent protein**

AB The present invention provides a **fluorescent protein** having an amino acid sequence of the green **fluorescent protein**, the yellow **fluorescent protein** or mutants thereof wherein the 46th phenylalanine residue is substituted with a leucine residue. According to the present invention, there are provided novel **GFP** or **YEP** mutants having an excellent maturation efficacy and having a decreased sensitivity to both of H.sup.+ and Cl.sup.-.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:23698 USPATFULL

TITLE: **Fluorescent protein**

INVENTOR(S): Miyawaki, Atsushi, Wako-shi, JAPAN
Nagai, Takeharu, Tokyo, JAPAN

PATENT ASSIGNEE(S): RIKEN, Saitama, JAPAN (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003017538	A1	20030123
APPLICATION INFO.:	US 2002-162593	A1	20020606 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2001-174421	20010608
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	GREENBLUM & BERNSTEIN, P.L.C., 1941 ROLAND CLARKE PLACE, RESTON, VA, 20191	
NUMBER OF CLAIMS:	12	
EXEMPLARY CLAIM:	1	

NUMBER OF DRAWINGS: 4 Drawing Page(s)
LINE COUNT: 1204
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 20 OF 36 USPATFULL on STN
TI LONG WAVELENGTH ENGINEERED **FLUORESCENT PROTEINS**
AB Engineered **fluorescent proteins**, nucleic acids
encoding them and methods of use.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:17397 USPATFULL
TITLE: LONG WAVELENGTH ENGINEERED **FLUORESCENT PROTEINS**
INVENTOR(S): Wachter, Rebekka M., Creswell, OR, UNITED STATES
Remington, S. James, Eugene, OR, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003013149	A1	20030116
	US 6593135	B2	20030715
	US 2000-575847	A1	20000519 (9)
APPLICATION INFO.:	Continuation-in-part of Ser. No. US 1997-974737, filed on 19 Nov 1997, GRANTED, Pat. No. US 6077707		
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1997-911825, filed on 15 Aug 1997, GRANTED, Pat. No. US 6054321 Continuation of Ser. No. US 1996-706408, filed on 30 Aug 1996, GRANTED, Pat. No. US 6124128		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-24050P	19960816 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Lisa A Haile Ph D, Gray Cary Ware & Freidenrich LLP, 4365 Executive Drive, Suite 1100, San Diego, CA, 92121-2133	
NUMBER OF CLAIMS:	187	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	63 Drawing Page(s)	
LINE COUNT:	3752	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 21 OF 36 USPATFULL on STN
TI **Fluorescent protein** sensors for detection of analytes
AB **Fluorescent** indicators including a binding **protein** moiety, a donor **fluorescent protein** moiety, and an acceptor **fluorescent protein** moiety are described. The binding protein moiety has an analyte-binding region which binds an analyte and causes the indicator to change conformation upon exposure to the analyte. The donor moiety and the acceptor moiety change position relative to each other when the analyte binds to the analyte-binding region. The donor moiety and the acceptor moiety exhibit fluorescence **resonance energy** transfer when the donor moiety is excited and the distance between the donor moiety and the acceptor moiety is small. The indicators can be used to measure analyte concentrations in samples, such as calcium ion concentrations in cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:295314 USPATFULL
TITLE: **Fluorescent protein** sensors for detection of analytes
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, UNITED STATES
Miyawaki, Atsushi, San Diego, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002165364	A1	20021107
APPLICATION INFO.:	US 2000-554000	A1	20000420 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1997-818252, filed on 14 Mar 1997, GRANTED, Pat. No. US 6197928		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	LISA A. HAILE, J.D., PH.D., GRAY CARY WARE & FREIDENRICH LLP, 4365 EXECUTIVE DRIVE, SUITE 1100, SAN DIEGO, CA, 92121-2133		
NUMBER OF CLAIMS:	37		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	17 Drawing Page(s)		
LINE COUNT:	2677		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 22 OF 36 USPATFULL on STN

TI Tandem **fluorescent protein** constructs

AB This invention provides tandem **fluorescent protein** construct including a donor **fluorescent protein** moiety, an acceptor **fluorescent protein** moiety and a **linker** moiety that couples the donor and acceptor moieties. The donor and acceptor moieties exhibit fluorescence **resonance energy** transfer which is eliminated upon cleavage. The constructs are useful in enzymatic assays.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:294631 USPATFULL

TITLE: Tandem **fluorescent protein** constructs

INVENTOR(S): Tsien, Roger Y., La Jolla, CA, UNITED STATES
Heim, Roger, Del Mar, CA, UNITED STATES
Cubitt, Andrew, San Diego, CA, UNITED STATES

PATENT ASSIGNEE(S): THE REGENTS OF THE UNIVERSITY OF CALIFORNIA (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002164674	A1	20021107
APPLICATION INFO.:	US 2002-57505	A1	20020125 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-396003, filed on 13 Sep 1999, PENDING Continuation of Ser. No. US 1997-792553, filed on 31 Jan 1997, GRANTED, Pat. No. US 5981200 Continuation-in-part of Ser. No. US 1996-594575, filed on 31 Jan 1996, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Lisa A. Haile, J.D., Ph.D., GRAY CARY WARE & FREIDENRICH LLP, Suite 1100, 4365 Executive Drive, San Diego, CA, 92121-2133		
NUMBER OF CLAIMS:	57		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	10 Drawing Page(s)		
LINE COUNT:	1845		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 23 OF 36 USPATFULL on STN

TI Circularly permuted **fluorescent protein** indicators

AB Polynucleotides encoding fluorescent indicators, which contain a sensor polypeptide inserted within a fluorescent moiety, are provided, as are polypeptides encoded by such polynucleotides. Also provided are circularly permuted fluorescent polypeptides and polynucleotides

encoding the circularly permuted fluorescent polypeptides. In addition, methods of using the fluorescent indicators and the circularly permuted fluorescent polypeptides are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:281665 USPATFULL
TITLE: Circularly permuted **fluorescent protein** indicators
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, UNITED STATES
Baird, Geoffrey, San Diego, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002157120	A1	20021024
APPLICATION INFO.:	US 2001-999745	A1	20011023 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1999-316920, filed on 21 May 1999, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	WO 2000-US13684	20000517
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	GARY CARY WARE & FRIENDENRICH LLP, 4365 EXECUTIVE DRIVE, SUITE 1600, SAN DIEGO, CA, 92121-2189	
NUMBER OF CLAIMS:	41	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	14 Drawing Page(s)	
LINE COUNT:	3477	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 24 OF 36 USPATFULL on STN

TI **Fluorescent protein** indicators

AB The present invention provides polypeptide and polynucleotides encoding fluorescent indicators having inserted within a fluorescent moiety a sensor polypeptide. Also provided are methods of using the fluorescent indicator. Circularly permuted fluorescent polypeptides and polynucleotides are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:276196 USPATFULL
TITLE: **Fluorescent protein** indicators
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
Baird, Geoffrey, Solana Beach, CA, United States
PATENT ASSIGNEE(S): The Regents of the University of California, Oakland, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6469154	B1	20021022
APPLICATION INFO.:	US 1999-316919		19990521 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Mertz, Prema		
ASSISTANT EXAMINER:	Murphy, Joseph F.		
LEGAL REPRESENTATIVE:	Knobbe, Martens, Olson & Bear, LLP		
NUMBER OF CLAIMS:	23		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	9 Drawing Figure(s); 8 Drawing Page(s)		
LINE COUNT:	2582		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 25 OF 36 USPATFULL on STN

TI Optical probes and assays

AB This invention provides an optical probe useful as an optical probe or sensor of post translational type modifications, such as phosphorylation. The invention comprises a polypeptide moiety, which contains a recognition motif for a post translational type activity and a **protease** site, which is coupled to a probe moiety. Modification of the polypeptide, by the post translational type activity, results in a modulation of the rate at which a **protease** cleaves the polypeptide which is sensed by a measurable change in at least one optical property of the optical probe upon cleavage. The present invention also includes a recombinant nucleic acid molecule that encodes an optical probe and a vector and host cell or library of cells that include the recombinant nucleic acid molecule. The optical probe can be used in methods to determine whether a sample, including a cell or a sample from an organism, contains a post-translational type modification activity. Such methods can also be used to determine whether a test chemical modulates the activity of a modifying activity, and thus can be used to identify therapeutic compositions. The identification of such therapeutic compositions can be automated using a system that includes an optical probe.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:152405 USPATFULL
TITLE: Optical probes and assays
INVENTOR(S): Pollok, Brian A., San Diego, CA, United States
Hamman, Brian D., Poway, CA, United States
Rodems, Steven M., Poway, CA, United States
Makings, Lewis R., Encinitas, CA, United States
PATENT ASSIGNEE(S): Aurora Biosciences Corporation, San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6410255	B1	20020625
APPLICATION INFO.:	US 1999-306542		19990505 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Achutamurthy, Ponnathapu		
ASSISTANT EXAMINER:	Walicka, Malgorzata A.		
LEGAL REPRESENTATIVE:	Gray, Cary, Ware & Friedenrich LLP, Haile, Lisa A.		
NUMBER OF CLAIMS:	31		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	8 Drawing Figure(s); 8 Drawing Page(s)		
LINE COUNT:	3131		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 26 OF 36 USPATFULL on STN
TI Long wavelength engineered **fluorescent proteins**
AB Engineered **fluorescent proteins**, nucleic acids
encoding them and methods of use are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:136818 USPATFULL
TITLE: Long wavelength engineered **fluorescent proteins**
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
Remington, S. James, Eugene, OR, United States
Cubitt, Andrew B., San Diego, CA, United States
Heim, Roger, Del Mar, CA, United States
Ormo, Mats F., Huddinge, SWEDEN
PATENT ASSIGNEE(S): The Regents of the University of California, Oakland, CA, United States (U.S. corporation)

NUMBER	KIND	DATE
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PATENT INFORMATION: US 6403374 B1 20020611
 APPLICATION INFO.: US 1999-465142 19991216 (9)
 RELATED APPLN. INFO.: Continuation of Ser. No. US 1997-974737, filed on 19
 Nov 1997, now patented, Pat. No. US 6077707
 Continuation of Ser. No. US 1997-911825, filed on 15
 Aug 1997, now patented, Pat. No. US 6054321
 Continuation-in-part of Ser. No. US 1996-706408, filed
 on 30 Aug 1996, now patented, Pat. No. US 6124128

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-24050P	19960816 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Nashed, Nashaat T.	
LEGAL REPRESENTATIVE:	Gray Cary Ware & Freidenrich LLP, Haile, Lisa A.	
NUMBER OF CLAIMS:	23	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	55 Drawing Figure(s); 53 Drawing Page(s)	
LINE COUNT:	2152	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 27 OF 36 USPATFULL on STN

TI Compositions and methods for assaying subcellular conditions and
 processes using energy transfer
 AB The invention provides compositions and methods for monitoring
 subcellular compartments such as organelles by energy transfer
 techniques that do not require specific intermolecular affinity binding
 events between energy transfer donor and energy transfer acceptor
 molecules. Provided are methods for assaying cellular membrane
 potential, including mitochondrial membrane potential, by **energy**
 transfer methodologies including fluorescence **resonance**
energy transfer (**FRET**). Diagnostic and drug screening
 assays are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:214895 USPATFULL
 TITLE: Compositions and methods for assaying subcellular
 conditions and processes using energy transfer
 INVENTOR(S): Dykens, James A., Encinitas, CA, United States
 Veli.cedilla.elebi, Gonul, San Diego, CA, United States
 Ghosh, Soumitra S., San Diego, CA, United States
 PATENT ASSIGNEE(S): Mitokor, San Diego, CA, United States (U.S.
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6323039	B1	20011127
APPLICATION INFO.:	US 1999-338122		19990622 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Brusca, John S.		
ASSISTANT EXAMINER:	Lundgren, Jeffrey S.		
LEGAL REPRESENTATIVE:	Seed Intellectual Property Law Group, PLLC		
NUMBER OF CLAIMS:	54		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	17 Drawing Figure(s); 11 Drawing Page(s)		
LINE COUNT:	4844		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 28 OF 36 USPATFULL on STN

TI Compositions and methods for assaying subcellular conditions and
 processes using energy transfer
 AB The invention is provides compositions and methods for monitoring

subcellular compartments such as organelles by energy transfer techniques that do not require specific intermolecular affinity binding events between energy transfer donor and energy transfer acceptor molecules. Provided are methods for assaying cellular membrane potential, including mitochondrial membrane potential, by **energy transfer methodologies** including fluorescence **resonance energy transfer (FRET)**. Diagnostic and drug screening assays are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:142122 USPATFULL
 TITLE: Compositions and methods for assaying subcellular conditions and processes using energy transfer
 INVENTOR(S): Dykens, James A., Encinitas, CA, United States
 Veli.cedilla.elebi, Gonul, San Diego, CA, United States
 Ghosh, Soumitra S., San Diego, CA, United States
 PATENT ASSIGNEE(S): Mitokor, San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6280981	B1	20010828
APPLICATION INFO.:	US 2000-514569		20000223 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1999-338122, filed on 22 Jun 1999		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Brusca, John S.		
ASSISTANT EXAMINER:	Lundgren, Jeffrey S.		
LEGAL REPRESENTATIVE:	Seed Intellectual Property Law Group PLLC		
NUMBER OF CLAIMS:	24		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	17 Drawing Figure(s); 11 Drawing Page(s)		
LINE COUNT:	4803		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 29 OF 36 USPATFULL on STN

TI **Fluorescent protein** sensors for detection of analytes

AB **Fluorescent** indicators including a binding **protein** moiety, a donor **fluorescent protein** moiety, and an acceptor **fluorescent protein** moiety are described. The binding protein moiety has an analyte-binding region which binds an analyte and causes the indicator to change conformation upon exposure to the analyte. The donor moiety and the acceptor moiety change position relative to each other when the analyte binds to the analyte-binding region. The donor moiety and the acceptor moiety exhibit fluorescence **resonance energy** transfer when the donor moiety is excited and the distance between the donor moiety and the acceptor moiety is small. The indicators can be used to measure analyte concentrations in samples, such as calcium ion concentrations in cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:33424 USPATFULL
 TITLE: **Fluorescent protein** sensors for detection of analytes
 INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
 Miyawaki, Atsushi, San Diego, CA, United States
 PATENT ASSIGNEE(S): The Regents of the University of California, Oakland, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6197928	B1	20010306

APPLICATION INFO.: US 1997-818252 19970314 (8)
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Scheiner, Laurie
ASSISTANT EXAMINER: Parkin, Jeffrey S.
LEGAL REPRESENTATIVE: Gray, Cary, Ware & Friedenrich LLP, Haile, Lisa A.
NUMBER OF CLAIMS: 37
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 10 Drawing Figure(s); 18 Drawing Page(s)
LINE COUNT: 1803
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 30 OF 36 USPATFULL on STN

TI **Fluorescent protein** sensors for measuring the pH of
a biological sample
AB Disclosed are **fluorescent protein** sensors for
measuring the pH of a sample, nucleic acids encoding them, and methods
of use. The preferred **fluorescent protein** sensors
are variants of the green **fluorescent protein** (
GFP) from *Aequorea victoria*. Also disclosed are compositions and
methods for measuring the pH of a specific region of a cell, such as the
mitochondrial matrix or the Golgi lumen.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2000:157229 USPATFULL
TITLE: **Fluorescent protein** sensors for
measuring the pH of a biological sample
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
Llopis, Juan, La Jolla, CA, United States
Wachter, Rebekka M., Creswell, OR, United States
Remington, S. James, Eugene, OR, United States
PATENT ASSIGNEE(S): The Regents of the University of California, Oakland,
CA, United States (U.S. corporation)
The State of Oregon acting by and through the State of
Board of Higher Education on behalf of the Unviersity
of Oregon, Eugene, OR, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6150176		20001121
APPLICATION INFO.:	US 1998-172063		19981013 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1998-94359, filed on 9 Jun 1998		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Slobodyansky, Elizabeth		
LEGAL REPRESENTATIVE:	Gray Cary Ware & Freidenrich LLP, Haile, Lisa A.		
NUMBER OF CLAIMS:	38		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	11 Drawing Figure(s); 5 Drawing Page(s)		
LINE COUNT:	3306		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 31 OF 36 USPATFULL on STN

TI Long wavelength engineered **fluorescent proteins**
AB Engineered **fluorescent proteins**, nucleic acids
encoding them and methods of use.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2000:128162 USPATFULL
TITLE: Long wavelength engineered **fluorescent
proteins**
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
Cubitt, Andrew B., San Diego, CA, United States

Heim, Roger, Del Mar, CA, United States
 Ormo, Mats F., Huddinge, Sweden
 Remington, S. James, Eugene, OR, United States
 PATENT ASSIGNEE(S): The Regents of the University of California, Oakland,
 CA, United States (U.S. corporation)
 Aurora Biosciences, La Jolla, CA, United States (U.S.
 corporation)
 The University of Oregon, Eugene, OR, United States
 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6124128		20000926
APPLICATION INFO.:	US 1996-706408		19960830 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Achutamurthy, Ponnathapura		
ASSISTANT EXAMINER:	Nashed, Nashaat T.		
LEGAL REPRESENTATIVE:	Fish & Richardson P.C.		
NUMBER OF CLAIMS:	37		
EXEMPLARY CLAIM:	9		
NUMBER OF DRAWINGS:	55 Drawing Figure(s); 53 Drawing Page(s)		
LINE COUNT:	1735		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 32 OF 36 USPATFULL on STN
 TI Long wavelength engineered **fluorescent proteins**
 AB This invention provides functional engineered **fluorescent proteins** with varied **fluorescence** characteristics that can be easily distinguished from currently existing green and blue **fluorescent proteins**. In one aspect, the invention provides nucleic acids, expression vectors and recombinant host cells comprising nucleotide sequences encoding functional engineered **fluorescent proteins** comprising aromatic substitutions at position 66 and a folding mutation. In one embodiment the invention provides for **fluorescent proteins** containing an aromatic substitution at Thr 203.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2000:77223 USPATFULL
 TITLE: Long wavelength engineered **fluorescent proteins**
 INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
 Remington, S. James, Eugene, OR, United States
 Cubitt, Andrew B., San Diego, CA, United States
 Heim, Roger, Del Mar, CA, United States
 Ormo, Mats F., Huddinge, Sweden
 PATENT ASSIGNEE(S): The Regents of the University of California, Oakland,
 CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6077707		20000620
APPLICATION INFO.:	US 1997-974737		19971119 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1997-911825, filed on 15 Aug 1997 which is a continuation-in-part of Ser. No. US 1996-706408, filed on 30 Aug 1996		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-24050P	19960816 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Nashed, Nashaat	

LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich LLP, Haile, Lisa A.
NUMBER OF CLAIMS: 17
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 53 Drawing Figure(s); 53 Drawing Page(s)
LINE COUNT: 2162
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 33 OF 36 USPATFULL on STN

TI Long wavelength engineered **fluorescent proteins**
AB This invention provides functional engineered **fluorescent proteins** with varied **fluorescence** characteristics that can be easily distinguished from currently existing green and blue **fluorescent proteins**. In one embodiment the invention provides for the three dimensional structure and atomic coordinates of an Aequorea green **fluorescent protein** and methods for their use. In one embodiment, this invention provides a computational method of modeling the three dimensional structure of any other **fluorescent protein** based on the three dimensional structure of an Aequorea green **fluorescent protein**.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2000:50571 USPATFULL
TITLE: Long wavelength engineered **fluorescent proteins**
INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
Remington, S. James, Eugene, OR, United States
Cubitt, Andrew B., San Diego, CA, United States
Heim, Roger, Del Mar, CA, United States
Ormo, Mats F., Huddinge, Sweden
PATENT ASSIGNEE(S): The Regents of the University of California, Oakland, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6054321		20000425
APPLICATION INFO.:	US 1997-911825		19970815 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-706408, filed on 30 Aug 1996		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-24050P	19960816 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Nashed, Nashaat	
LEGAL REPRESENTATIVE:	Gray Cary Ware & Freidenrich LLP, Haile, Lisa A.	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	36 Drawing Figure(s); 53 Drawing Page(s)	
LINE COUNT:	2254	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 34 OF 36 USPATFULL on STN

TI Photochromic **fluorescent proteins** and optical memory storage devices based on **fluorescent proteins**
AB Photochromic **fluorescent protein** moiety having two or more stable states having excitation or emission spectra that are shifted from one wavelength region to another wavelength region in the two states are described. The photochromic material switches between states by irradiation with light of appropriate wavelengths. The two states are preferably stable at room temperature and in the dark. The switching between states can be reversible.

ACCESSION NUMBER: 2000:41769 USPATFULL
 TITLE: Photochromic **fluorescent proteins**
 and optical memory storage devices based on
fluorescent proteins
 INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
 Heim, Roger, Cardiff by the Sea, CA, United States
 Cubitt, Andrew B., San Diego, CA, United States
 Dickson, Robert M., San Diego, CA, United States
 Moerner, William E., La Jolla, CA, United States
 PATENT ASSIGNEE(S): The Regents of the University of California, Oakland,
 CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6046925		20000404
APPLICATION INFO.:	US 1997-839685		19970414 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Nelms, David		
ASSISTANT EXAMINER:	Ho, Hoai V.		
LEGAL REPRESENTATIVE:	Fish & Richardson P.C.		
NUMBER OF CLAIMS:	87		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	23 Drawing Figure(s); 9 Drawing Page(s)		
LINE COUNT:	1684		

L14 ANSWER 35 OF 36 USPATFULL on STN

TI **Fluorescent protein** sensors for detection of
 analytes
 AB **Fluorescent** indicators including a binding **protein**
 moiety, a donor **fluorescent protein** moiety, and an
 acceptor **fluorescent protein** moiety are described.
 The binding protein moiety has an analyte-binding region which binds an
 analyte and causes the indicator to change conformation upon exposure to
 the analyte. The donor moiety and the acceptor moiety change position
 relative to each other when the analyte binds to the analyte-binding
 region. The donor moiety and the acceptor moiety exhibit fluorescence
resonance energy transfer when the donor moiety is
 excited and the distance between the donor moiety and the acceptor
 moiety is small. The indicators can be used to measure analyte
 concentrations in samples, such as calcium ion concentrations in cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 1999:159820 USPATFULL
 TITLE: **Fluorescent protein** sensors for
 detection of analytes
 INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
 Miyawaki, Atsushi, San Diego, CA, United States
 PATENT ASSIGNEE(S): The Regents of the University of California, Oakland,
 CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5998204		19991207
APPLICATION INFO.:	US 1997-818253		19970314 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Brusca, John S.		
LEGAL REPRESENTATIVE:	Gray Cary Ware & Friedenrich LLP, Haile, Lisa A.		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	16		
NUMBER OF DRAWINGS:	17 Drawing Figure(s); 18 Drawing Page(s)		
LINE COUNT:	2939		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 36 OF 36 USPATFULL on STN

TI Tandem **fluorescent protein** constructs

AB This invention provides tandem **fluorescent protein** construct including a donor **fluorescent protein** moiety, an acceptor **fluorescent protein** moiety and a **linker** moiety that couples the donor and acceptor moieties. The donor and acceptor moieties exhibit fluorescence **resonance energy** transfer which is eliminated upon cleavage. The constructs are useful in enzymatic assays.

pat. doc.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 1999:141607 USPATFULL

TITLE: Tandem **fluorescent protein** constructs

INVENTOR(S): Tsien, Roger Y., La Jolla, CA, United States
Heim, Roger, Del Mar, CA, United States
Cubitt, Andrew, San Diego, CA, United States

PATENT ASSIGNEE(S): The Regents of the University of California, Oakland, CA, United States (U.S. corporation)
Aurora Biosciences Corporation, La Jolla, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5981200		19991109
APPLICATION INFO.:	US 1997-792553		19970131 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-594575, filed on 31 Jan 1996		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Feisee, Lila		
ASSISTANT EXAMINER:	Pak, Michael		
LEGAL REPRESENTATIVE:	Fish & Richardson P.C.		
NUMBER OF CLAIMS:	27		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	10 Drawing Figure(s); 10 Drawing Page(s)		
LINE COUNT:	1903		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.